



PROCEEDINGS

of the
American Society
of
Civil Engineers

2 PARTS

PART 2

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New Orleans Convention 1877

Members present	75
Special guests	20
Total	95

THE library of H. H. Quimby, Member, yields a pamphlet written and apparently published by one who calls himself "The Special". It has thirty-two pages, 6½ by 10¼ in, is profusely illustrated, and commemorates the Society Convention in New Orleans in 1877. Some of its illustrations are reproduced here and certain of its comments abstracted.

"This year the Society is to meet at New Orleans. At the tables, as I look about me, I see the faces of many who have carved their names upon the enduring tablets of Fame, through engineering achievements, for which America has compelled the admiration of the world."

"At Cincinnati we inspected the great bridge which is being thrown over the Ohio. This bridge is a remarkable one in many ways. It is ninety feet from flooring to the average height of the water. It will have the longest truss span in the world. The iron work is all wrought, and is the heaviest ever used in a bridge."

"Louisville is the leading city of Kentucky. This is a solidly built city of wide, well-paved streets and rows of business buildings, with handsome facades. A general look of cleanliness, and the worst illuminating gas in the Union."

"The great pride of the town (Mobile) is the 'Shell Road' which extends along the bay side for sev-

eral miles and presents many charming views. In the town, the fragrance



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Applications

A "FUNCTIONAL BUDGET" of expected expenditures, prepared for the guidance of the Board of Direction in connection with the real budget, disclosed at least one thing of some interest. That was, the effort expended upon applications for admission and transfer.

If asked, "How many people are engaged on that work?" the easy answer would have been, "Three, all the time". When one got right into it, however, and began to make a moderately refined allocation of rent, printing, postage costs, etc., and then went on into a determination of the labor items, it was remarkable to note the number of different employees each having a distinct part in this phase of Society work.

As a matter of routine, the typing of letters, codifying replies from endorsers and employers, printing of the lists, preparation for consideration by the Board, mailing, etc., takes up some definite and appreciable part of the time of fourteen different employees.

City Planning Division

By C. E. Grunsky

Chairman Executive Committee

MORE than 10% of the members of the American Society of Civil Engineers have expressed their interest in City Planning by enrolling as members of the City Planning Division. How best to serve this group of engineers is the problem which confronts the Executive Committee.

A brief review of the Division's past activities and of the prospect for enlarged service may be timely. It is to be noted with satisfaction that in the establishment of Divisions covering the various branches of the Engineering Profession the Society has afforded an opportunity to those who specialize to keep in close touch with the present state of the art in their particular fields of endeavor. The activities in the Society's various Divisions give ample evidence of the wisdom of this movement.

We may still query: Why was this step so long delayed? Why did we not hold those who are now active in the other Founder Societies? They are all civil engineers and should never have branched off. But, then, the Society, now on a secure financial footing, was not always in a position to assure the needed aid. Perhaps now that it is strong and growing some way may be suggested for correcting the mistake of the past. At any rate the formation of Divisions has been a step in the right direction.

There has been a compelling demand for meetings of the City Planning Division at nearly all the Society's Quarterly Meetings. Moreover, one meeting after another has been voted a success both with reference to attendance and to the material presented at the meetings. It is quite apparent that the importance of the work done by the city planner is be-

ginning to find general recognition.

The public is gradually learning that twenty-five and fifty years are short periods in the life of a city and that expert study is essential to forecast, even for these short periods, the developments which should be foreseen and for which adequate provision should be made. In this connection the concentration of tremendous business activity on small areas presents problems which are deserving of, and which are receiving, the most critical and exhaustive study.

No ultimate generally acceptable solution has yet been found. The skyscraper seems to be recognized as a desirable, or perhaps even necessary, evil regardless of the consequent congestion problem, the magnitude of which is not yet consciously comprehended. The down-town traffic problem ties in with that of providing through traffic routes with the complications resulting from the need of railway, bus, steamboat, and airway terminal facilities; all adequate to meet growing requirements and yet all so located as to afford convenient access to and from the population centers.

One of the subjects which has been on the programs for discussion at Division meetings is the relation of the legal profession to City Planning. It is not enough to know what ought to be done. It is equally important to know how to proceed. Consequently, much attention must be given to City Charters and to legislative enactments in order that reasonable means may be found to the desirable accomplishment. Both at the recent meeting at Dallas, Tex., and at the January meeting in New York, the Division received valuable suggestions on these subjects from experienced attorneys.

Another matter which is being discussed at Division meetings is the development of the Capital City. Whenever practical, the Executive Committee arranges for a paper presenting a historical and technical review of the growth of a capital city and of the solution of its early problems, covering also pending and prospective projects. The symposium, in the course of time, should be rich in examples and suggestions to the city planner.

The need of a Manual on City Planning is generally recognized and has prompted the appointment of a Committee on this subject. It is

hoped that, in co-operation with other organizations, the preparation of such a manual can be undertaken in the near future. Standardizing the map work of the city planner has also received attention and a committee on that subject has been named.

It is particularly desirable that intimate contact between the members of the Division and its Executive Committee be maintained. Suggestions will be welcomed relating to Division activities. What can be done that is not now done to advance the interests of the City Planner and to better the service which he renders to his clients? The greatest possible use should be made of the facilities which the Society places at the disposal of the Division. The large degree of permanency given to the Executive Committee by the recently introduced plan of five years of service and only one retiring member each year, gives assurance of the continuity of any adopted program and should lighten materially the burden which each member of the Executive Committee has assumed.

Re Membership

The Society By-Laws—Article 1, Section 2—read as follows:

"At stated periods . . . there shall be issued to each member in any grade entitled to receive the publications of the Society, a list of all new applications received for admission or for transfer, which list shall be dated and shall contain a concise statement of the record of each applicant and the names of his references, with a request that members transmit to the Board any information in their possession which may affect the disposition of the application. . . . The Board of Direction shall consider these applications, together with any information in regard to the applicants that may have been received . . . and . . . shall vote thereon by ballot."

Notwithstanding the fact that 67 Local Membership Committees are conscientiously assisting the Board of Direction in its "membership work", the voluntary communications received from the membership are viewed by the Board as further very valuable aids, providing information which its members consider most important.

Formerly, the membership had the determining vote on all applicants—a procedure that obviously is not now practicable. It still has, however, not only the opportunity, but also the obligation, to assist the Board in this work.

To Japan

UNLESS plans miscarry, there will be 47 of the American members of the Society in attendance upon the World Engineering Congress in Japan the latter part of this month. The total American delegation will number about 140 men and 100 ladies.

During the past month, too, there have been in America en route many prominent engineers from other countries: Germany; Italy, whence came our own Honorary Member, Senator Luigi Luiggi, and nine other Italian Delegates; Denmark; Sweden; England; France; Yugoslavia; and Czecho-Slovakia.

An Executive Committee of the American Society of Civil Engineers' party has been designated by President Marston to consist of Past-President C. E. Grunsky (Chairman), Past-President George S. Davison, present Vice-President George W. Fuller, and Past-Directors John N. Chester and George H. Fenkell.

American official representatives have been appointed to the total of 60; 25 representing the United States Government; 28 the four Founder Societies, 7 from each; and the remainder representing various other Societies and Engineering Schools. The Society's official representatives are: Past-President and Honorary Members Charles D. Marx and Arthur N. Talbot; Past-Presidents George S. Davison and C. E. Grunsky; present Vice-President George W. Fuller; Past Vice-Presidents Allen Hazen and John C. Hoyt. Past-Presidents John R. Freeman and Robert Ridgway will go as representatives of the United States Government.

The total list of American members of the Society is, as follows:

William H. Adams	William R. Kales
H. E. Babbitt	Gustav Lindenthal
Edward Bartow	J. B. Lippincott
John N. Chester	Charles T. Main
Robert A. Cummings	R. R. Martel
George S. Davison	Charles D. Marx
Howard N. Elmer	Francis C. McMath
J. M. R. Fairbairn	Oscar C. Merrill
George H. Fenkell	Ralph Modjeski
Robert Follansbee	J. Arnold Norcross
John R. Freeman	Glenn L. Parker
George W. Fuller	H. de B. Parsons
C. E. Grunsky	Asa E. Phillips
W. K. Hatt	A. C. Polk
Allen Hazen	H. Linton Reber
D. C. Henny	Robert Ridgway
John C. Hoyt	Wellington Rupp
Edgar Jadwin	Davis Rushmore
Dugald C. Jackson	Herman Schneider

Francis Lee Stuart
Arthur N. Talbot
Oscar G. Thurlow
Max Toltz

F. E. Turneure
Daniel L. Turner
H. Bruce Walker
Louis Yager

The Society has 42 members resident in Japan so that, should all be in attendance, there will be the goodly number of 89 members of the American Society of Civil Engineers to represent it at the time the certificate and the badge are presented to Baron Koi Furuichi, whom the Board of Direction has elected an Honorary Member.

Baron Furuichi will be the sixty-sixth Honorary Member elected by the Society in its seventy-seven years of existence.

October Proceedings

THE papers read at the recent Annual Convention in Milwaukee, Wis., are published in abstract as the first part of Papers and Discussions in the October Proceedings. The subject of Waterways Transportation occupied the time given to the Technical Session, with five papers of outstanding interest and value. There is included also the gist of seventeen papers and reports read before the City Planning, Construction, Waterways, and Highway Divisions.

To those who are interested in the problem of controlling vibrations in engineering structures, the paper on "Vibration Dampers and Insulators" by Stephen E. Slocum, Member, will be of especial value. This paper is one of experimental research, dealing with three vibrating elements—a transmitting system, a receiving system, and an insulating system. The author imposes an initial vibration and observes its reaction on the "receiver", comparing the relative effects of various insulating media by means of a series of vibrographs.

In a paper entitled, "Spillway Discharge Capacity of Wilson Dam," Louis G. Puls, Associate Member, describes measurements made to determine the discharge capacities under very unusual conditions of flow. There are several noteworthy features of the paper, one of which is the fact that the head on the crest was 18 ft. and that readings were taken for several gate-openings from 3 ft. to full gate. The method of controlling the meter in a jet of water 15 ft. deep, flowing at the rate of 27 ft. per sec., will be of interest to hydraulic engineers.

Following this paper will be found the report of the Committee appointed by the Board of Direction, on April 24, 1928, to assemble for discussion the essential facts concerning the failure of the St. Francis Dam. Except for a concise description of the dam and the site, the Committee has confined itself strictly to statements made by various commissions

appointed to submit findings. The points upon which these commissions agree and differ are stated briefly. The result is a clear picture of the situation from an engineering aspect.

The discussions this month number 14, on 10 different subjects and, finally, the biographical record of the Society is increased by the addition of 22 memoirs.

Miscellany

The papers presented at the Annual Meeting were abstracted in Proceedings, Part I, on March 1; those read at the Dallas meeting were in the August 1 issue; and those of the Milwaukee meeting are in this, the October 1 issue.

With an abstract of the approaching Boston meeting papers the year's technical work, as produced through the medium of the meetings, will be made available, in essence, to the membership with a minimum of delay.

Continuance of the practice will depend on the expressions of approval or disapproval received from the membership.

By order of the Board of Direction each Local Section has been asked to devote a meeting this Fall to a discussion of the Report of the Committee on Charges and Method of Making Charges for Professional Services (September Proceedings). The report deals with topic of profound interest to every civil engineer in that it discusses frankly, in what is hoped the proper perspective, those fundamentals incident to the making of a good living in the pursuit of civil engineering as a business.

Each Section is asked to see that the criticisms elicited are made available to the Committee for study and possible incorporation in its redrafted final report.

Engineers who have opportunity to indulge in foreign travel may find it very convenient to buy letters of credit. Presumably they have the necessary connections with international financial houses to facilitate this. In case, however, such affiliations are not available, they will be glad to know that the Society's bankers, The Chase National Bank, of New York City, has offered, upon recommendation, to extend its facilities to any member.

The Society's Student Chapter Committee has in process of preparation a little booklet designed to be of help in the management of Student Chapters. It explains the relation of the Chapter to the Society; the requirements as stated in the By-laws; the advantages of membership in a Chapter; Suggested By-laws for Chapters, and suggestions for the conduct of the Chapter. The latter details practical modes of procedure, conduct of meetings, and possible topics.

During the summer months the headquarters staff was thrilled by two weddings. Miss Marsh of the Applications Department was married to Mr. Anthony

J. Delario, and Miss Featherstone of the Secretary's personal staff was married to Mr. John Minar.

A word about the Boston Meeting. Programs are out, local committees have been appointed and plans are perfected. All that remains is to "put it over" when the time comes.

The Boston members have thrown themselves into this meeting whole-heartedly. They have a Hospitality Committee and a Personality Committee, both designed to accord to members a cordial reception.

It remains for those not resident in Boston to take a day or two off and attend. Besides the technical advantages to be gained there is the opportunity to enlarge one's circle of acquaintances or to renew friendships already made.

Items crop up every now and then which give some idea of the magnitude of the Society's operations in the aggregate.

This time it is the amount of paper used in the publications. The little pamphlet entitled "Aims and Activities", issued last year weighed one and one-half tons. The Year Book weighed seven and one-half tons, and the 1928 Proceedings and Transactions weighed 140 tons. Total, 148 tons.

The following remark was overheard recently when one lady was telling another what a third had said in describing her civil engineer husband's business: "To hear her tell it, you'd think he ran the whole world."

Another copy of Vol. 89 of Transactions is wanted. The stock of that particular volume was exhausted quite promptly and now a copy is desired to make complete a set which goes as far back as Vol. XV. If any member has a copy of Vol. 89 which he is willing to contribute to complete another's set it will be appreciated if he will let the Secretary know.

For four years now it has been the practice to forward without charge twelve issues of the Engineering Societies Employment Service Bulletin of Positions Open to the graduating members of the Student Chapters. The weekly issue of April 13 went to 1356 students in personally addressed envelopes.

For economy's sake all bulletins going to the same engineering school are shipped in bulk to the Faculty Sponsor, to be distributed by him or for him by the Chapter Secretary.

Meeting Subjects for Local Sections

THE following is a partial list of topics featured at various Local Section Meetings held during the spring of 1929:

- Flood Control.
- Railroad Economics.
- Home Modernization.
- Weather Forecasting.
- Some Farm Problems.
- X-Rays in Engineering.
- Pioneer Engineers of California.
- Construction of the Diablo Dam.
- Structural Design of Aeroplanes.
- A Comprehensive Thoroughfare Plan.
- Enlarged Opportunities for Engineers.
- The Future of Hydro-Electric Power.
- The Construction of the Cascade Tunnel.
- The Importance of Topographic Mapping.
- The Planning and Construction of an Airport.
- Electric Welding of Steel Buildings and Bridges.
- Design and Construction of the Hudson River Bridge.
- Improvement of Relations between Engineers and Contractors.
- The Source of the Sun's Energy in the Light of Modern Physics.
- Observations and Impressions of Sanitary Engineering in Europe.
- Growth of Interest in Aviation and the Development of Laws Controlling Flying.
- The Use of Celluloid and Other Models in the Analysis of Complicated Structures.
- Observations and Experiences while Visiting Educational Institutions and Engineering Works in Europe.

"Students' Night"

ON April 17 the Philadelphia Local Section held its annual Student Chapter meeting.

Musical and comedy skits were given by members of the Student Chapters at Villanova, Drexel Institute, and the University of Pennsyl-

vania. Motion pictures of the Cascade Tunnel were shown.

Elisha Lee, Vice-President of the Pennsylvania System, the speaker of the evening, said that the men skilled in the application of science, that is, engineers, were to-day the dominators of every phase of social life; that they were the most important figures in human society.

He stressed this point, however—that the individual engineer who is, or is to be, successful and to be one of this dominant type, must be truly the link between the scientist and the business man, having scientific theories and facts, but with it showing also capable business judgment.

Such an engineer will apply, he said, to every project the practical business question, "Will it pay?" He advised the student and the young engineer to seek every opportunity to contact with the engineer who is practical as well as theoretical and with good clean business men.

Action and Reaction

A MEMBER, who would be recognized as a "real engineer" if his name were mentioned, recently volunteered his experience with respect to the Society's publications, as follows:

"Many years ago I decided to write a paper for the Society. When I started to put on paper what I thought I knew very well, I discovered that I didn't know (with the exactness necessary to write it out) as much as I thought I did.

"I looked up the necessary data, however, wrote the paper and in course of time read it before the Society. From that time on I began to make a careful record of not only the things that came under my observation in my own work, but of everything I read which had a bearing on my specialty.

"The writing of that paper not only impressed me with the need of having accurate knowledge, but also taught me how to acquire it, and have it ready for use when needed.

"My horizon was widened and I know this was the turning point in my career. From being merely an accurate transitman, a fair draftsman, and a pretty good chief of party, I began to have a vision of those things back of all engineering which make the difference between the mere technician and the real engineer."

New Orleans Convention

(Continued from page 1)

numbers of men seem unemployed. Dock hands are paid one dollar per day."

"At an early hour yesterday morning a few of us visited the French market (New Orleans). The gallant Col. R. discovered that bouquets of immense proportions, costing about \$5.00 at northern valuation, might be had for 25 cents. So he thought him to make a little offering to the ladies of our expedition. Shortly thereafter, a procession of about a dozen tourists, with the colonel at their head, between his bouquets, might have been seen marching up Chartres street."



"I called upon the incoming Governor. He predicts that Louisiana will soon be on the highway to permanent prosperity, such as she has not known since ante-bellum days. And indeed, with the success of Capt. Eads' jetties, a large cotton crop, and cessation of political strife, there is no reason, beyond the vile drainage system, why she should not prosper."



"The chief source of good derived from this annual congregation is found, after all, in the comparison of modes, by personal inspection of engineering works; in personal acquaintance with the projectors; in the dissolution of sectional prejudice; and, above all, in the sanitary refreshment of a few days away from the grind of routine, which envelopes the hard-worked professional man of the present day. And so the convention proper may be regarded, without disrespect, as a sort of framework upon which to hang the gorgeous tapestry of a trip to a new and interesting section, or, perhaps, as a decent excuse to oneself for going away from home in order to try and experience a little of happiness one used to feel when, in the old school days, the books were securely packed away for the summer."

(To be continued)

